Claims

1. In a data processing system comprising a processor and data storage means for storing data representative of the price evolution of a plurality of stock options over a time period, a method for analyzing the characteristics of sub-time periods of the time period where a change of trend of the price evolution occurs, the method comprising the steps of:

   a. for each sub-time period, aggregating data associated with each stock option by creating a standard description of the stock option's price;

   b. for each sub-time period, converting the standard description of each stock option's price into a candlestick pattern chosen among a predetermined typology of a plurality of candlestick patterns;

   c. for each sub-time period and for each stock option, comparing the standard description of the current sub-time period to the standard description of the previous sub-time period, and allocating a comparison code, the comparison code being chosen among a predetermined typology of a plurality of comparison codes;

   d. using each standard description created in step (a) for marking each sub-time period of each stock option with a trend indicator; and

   e. applying an exploratory data analysis method on the results obtained in steps (b), (c) and (d) for each stock option to determine a set of characteristics of the sub-time periods for the plurality of stock options.

2.   The method of claim 1 further comprising a first step before step (a) of collecting data at regular time intervals over the time period.

3.   The method of claim 1 wherein the standard description comprises a set of price values (open, close, low, high) describing the price evolution of each stock option within the sub-time period.

4.   The method of claim 1 wherein the sub-time period is one day.

5.   The method of claim 1 wherein steps (b), (c) and (d) are processed simultaneously.

6.   The method of claim 1 wherein step (d) is processed using a regression analysis method.

7.   The method of claim 1 wherein step (d) is processed using an image analysis detection method.

8.   The method of claim 1 wherein the data collected are representative of the evolution of a stock option parameter other than the stock option's price.

9.   A system for analyzing the characteristics of sub-time periods of a time period over which a change of trend of a price evolution of a plurality of stock options occurs, comprising:
   • means for storing data representative of the price evolution of the plurality of stock options,
   • means for aggregating the data associated with each stock option and for creating for each stock option a standard

description of the stock option's price for each sub-time period,

- means for converting each standard description into a candlestick pattern being chosen among a predetermined typology of a plurality of candlestick patterns,

- means for comparing the standard description of each stock option over a current sub-time period to the standard description of the respective stock option over the previous sub-time period, and allocating a comparison code, the comparison code being chosen among a predetermined typology of a plurality of comparison codes,

- means for marking each sub-time period with a trend indicator using the standard description of each stock option, and

- means for merging the output of the converting means, the output of the comparing means and the output marking means, to generate a set of characteristics of the sub-time periods for the plurality of stock options.

10. A system according to claim 9 wherein the means for generating the set of characteristics further comprise means for operating an exploratory data analysis method.

11. A system according to claim 9 further comprising means for collecting the data representative of the price evolution of the plurality of stock options at regular time intervals over the time period.

12. The system according to claim 9 further comprising means for simultaneously operating the converting means, the comparing means and the marking means.

13. The system according to claims 9 wherein the data collected are representative of the evolution of a stock option parameter other than the stock option's price.

14. In a data processing system comprising data storage means for storing historical data representative of the price evolution of a plurality of stock options over a time period, a computer program product comprising a program configured to perform a method for automatically analyzing characteristics of sub-time periods of the time period in which a change of trend of price evolution occurs, the method comprising the steps of

   a. for each sub-time period, aggregating data associated with each stock option by creating a standard description of the stock option's price;

   b. for each sub-time period, converting the standard description of each stock option's price into a candlestick pattern chosen among a predetermined typology of a plurality of candlestick patterns;

   c. for each sub-time period and for each stock option, comparing the standard description of the current sub-time period to the standard description of the previous sub-time period, and allocating a comparison code, the comparison code being chosen among a predetermined typology of a plurality of comparison codes;

   d. using each standard description created in step (a) for marking each sub-time period of each stock option with a trend indicator; and

   e. applying an exploratory data analysis method on the results obtained on steps (b), (c) and (d) for each stock option to determine a set of characteristics of the sub-time periods for the plurality of stock options.